

REMARKS

This application has been reviewed in light of the Office Action mailed June 23, 2010. Reconsideration of this application in view of the below remarks is respectfully requested. Claims 1 and 2 are pending in the application with Claim 1 being in independent form. Claims 19 – 27 have been previously withdrawn from consideration. Claims 5 – 18 are canceled by way of the present amendment. No new subject matter is introduced into the disclosure by way of the present response.

I. Rejection of Claims 1, 2, 5 – 7, 11 and 12 Under 35 U.S.C. § 102(e)

Claims 1, 2, 5 – 7, 11 and 12 are rejected under 35 U.S.C. § 102(e) as allegedly anticipated over U.S. Publication No 2003/0191368 (hereinafter, “Wang”).

Claims 5 – 7, 11 and 12 are canceled by way of the present amendment. Consequently the present rejection is rendered moot with respect to Claims 5 – 7, 11 and 12.

The present invention, as recited in the claims, has the objective of eliminating the need of a special optical system such as a polarized light optical system and has no restriction in the positional relation among illumination, observation target and image pickup device. To achieve this objective, the claimed invention is characterized in “generating an image representing a degree of nucleus variant and structure variant of a living body tissue based on a plurality of narrow band images obtained by using a plurality of narrow band lights existing in a blue light band of a visible light wavelength range, and an optical model for calculating a change of spectral reflectance of a living body tissue in accordance with change of a particle size distribution of a living body tissue”. The imaging apparatus of the present invention eliminates the need of a special optical system, and has no restriction in the positional relation between the

image pickup device and an observation target, which allows the device to be easily built in an existing endoscope.

Wang is directed a fluorescent imaging system, and is characterized in combining a first light source with a wide band and a second light source comprised of laser or light with a wavelength of 350 nm-420 nm (described as UV in the specification). That is, Wang does not disclose a light source device for irradiating a plurality of band lights of blue. In addition, Fig. 4 of Wang shows an irradiation range of illumination, and has no relation with a structure of a living body tissue.

Also, Wang has no reference to a relative scattering change that represents a degree of a nucleus variant and structure variant of a living body tissue. Rather the variations in Wang are a result of changing the angle of the endoscope such that regions caused by shadows of mucosal folds will change but regions caused by an adenoma will remain the same. The scale of an adenoma is significantly larger than the scale of a nucleus. Therefore, Wang does not generate a living body image having at least a scattering feature of a relative scattering change representing a degree of nucleus variant a living body tissue.

Further, Wang does not disclose a processor that generates a living body image based on narrow band images obtained in synchronization with each irradiation of the plurality of band light beams and on an optical model corresponding to a particle size distribution of the living body tissue.

Therefore, as demonstrated above, because Wang does not disclose each and every element recited in the present claims, Applicant respectfully submits that the rejection has

been obviated. Accordingly, Applicants respectfully request withdrawal of the rejection with respect to Claims 1 and 2 under 35 U.S.C. § 102(e).

Moreover, Georgakoudi and Imaizumi do not overcome the deficiency of Wang with respect to Claim 1. Specifically, Georgakoudi is directed to an invention relating to an analyzing method called Excitation-Emission Matrix (EEM), and does not disclose a technique related to imaging as in the pending invention. EEM needs a light source (laser light source) of a single wavelength and a spectral apparatus. The combined teachings and suggestions in Wang and Georgakoudi fail to realize scattered imaging without using a special light source and device, as in the claimed invention.

Further, the technique disclosed by Imaizumi needs application of a fluorescent material, a light source containing an infrared region, and a special optical system for separating between visible light and infrared light. Thus, the technique disclosed by Imaizumi, even when combined with Wang and/or Georgakoudi, fails to achieve scattered imaging without using a special light source and device, as in the claimed invention.

As mentioned above, even if Georgakoudi and Imaizumi were combined with Wang, the pending claim 1 would not be rendered obvious. Therefore, Claim 1 is believed to be non-obvious over the prior art references as well.

II. Rejection of Claims 8 – 10 Under 35 U.S.C. § 103(a)

Claims 8 – 10 are rejected under 35 U.S.C. § 103(a) as allegedly obvious over Wang in view of U.S. Patent No. 6,697,652 issued to Georgakoudi. Claims 8 – 10 are canceled by way of the present amendment. Consequently, the present rejection is rendered moot.

III. Rejection of Claims 13 – 16 Under 35 U.S.C. § 103(a)

Claims 13 – 16 are rejected under 35 U.S.C. § 103(a) as allegedly obvious over Wang in view of U.S. Patent No. 6,293,911 issued to Imaizumi. Claims 13 – 16 are canceled by way of the present amendment. Consequently, the present rejection is rendered moot.

IV. Rejection of Claims 17 and 18 Under 35 U.S.C. § 103(a)

Claims 17 and 18 are rejected under 35 U.S.C. § 103(a) as allegedly obvious over Wang in view of Imaizumi, and further in view of U.S. Patent No. 6,161,031 issued to Hochman. Claims 17 and 18 are canceled by way of the present amendment. Consequently, the present rejection is rendered moot.

CONCLUSIONS

In view of the foregoing remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1 and 2 are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Applicant's undersigned attorney at the number indicated below.

Respectfully submitted,

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